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ANTIOPHIAKA.

AN

ESSAY

ON

MITHRIDATIUM

AND

THERIACA.

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By W. HEBERDEN, M.D.

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*At nostri Proavi* —

— *nimum patienter utrumque,*  
*Ne dicam stulte, mirati.* HOR.

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MDCCXLV.



AN

ESSAY

ON

*MITHRIDATIUM, &c.*

**M**ITHRIDATES, the famous King of *Pontus*, had a strange affectation of superior skill in the powers of Simples. His Courtiers, we may imagine, flattered him upon it, and he has accordingly been delivered down to us as a second *Solomon*. Whereas if we consider the little leisure, that he had for his own enquiries into this part of nature; or the little helps, that he could have from the people about him; we must conclude that his knowledge was very inconsiderable. However, *Pompey* seems to have been possessed with the vulgar opinion, and, after he had conquered this King, took uncommon care to secure his writings, in hopes of some mighty treasures of natural knowledge. He was soon convinced of what he might easily have foreseen, and is represented as laughing at the disappointment of his own credulity, when, instead of those

A great

great arcana, he only found one or two trifling receipts. <sup>a</sup>

There were probably some artful people at this time, who were not disposed to part so easily with the great expectations that had been raised, nor to lose this fair opportunity of enriching themselves by a plausible imposture: which has since, been several times repeated and is frequently practiced amongst us at this day. For soon after, there was published in *Rome* a most pompous medicine with the name of *Antidotum Mithridaticum*, which was pretended to have been found among his papers: though *Plutarch* <sup>b</sup> who gives a minute detail of them (mentioning the Love-letters and several interpretations of Dreams) says not one word of this famous medicine; which one can hardly think that he would have omitted, if he had found the tradition supported by any proper testimonies. The authority of *Q. Serenus Samonicus* is more positive, who says that, notwithstanding the many receipts of *Mithridaticum* that were handed about, the true medicine found in the cabinet of *Mithridates*, was only that trivial one consisting of twenty leaves of rue, one grain of salt, two nuts, and two dried figs. <sup>c</sup> So that there is some reason to suspect

<sup>a</sup> Q. Serenus Samonicus de Venen. prohib.

<sup>b</sup> In Vit. Pomp.

<sup>c</sup> De Venen. Prohib.

that *Mithridates* was as much a stranger to his own antidote, as several eminent Physicians have since been to the medicines that are daily advertised under their names.

The Publishers were not content with fathering this composition upon so great a name, but were likewise very extravagant in their commendations of it's virtues: The principal of which was made to consist in it's being a most powerful preservative from all kinds of venom. Whoever took a proper quantity in a morning, was insured from being poisoned during that whole day.<sup>a</sup> This was confirmed by the example<sup>b</sup> of it's supposed Inventor; who was farther said, by using it in this manner, to have been at last so fortified against all baneful Simples, that none would have any effect, when he wanted their assistance to dispatch himself.<sup>c</sup>

By these arts it gained so great a reputation, that some of the Roman Emperors prepared it for themselves with their own hands; several Physicians among the Antients employed their studies upon it in order to render it more perfect; and it has been the subject of many volumes, as well as the occasion of many unaccountable medicines made in emulation of it, among the

Galen de Antid. L. 1.

<sup>b</sup> Celsus. L. 5. c. 23.

<sup>c</sup> Celsus et Appian.

Moderns. In particular, *Andromachus*, who was physician to *Nero*, made considerable alterations in it; among other things leaving out the Scink, adding Vipers, and increasing the proportion of Opium. He likewise changed the name of the *Mithridatium* thus reformed to *Γαλίνη*, but in *Trajan's* time it obtained that of *Theriaca*, either from the Vipers in it, or from it's good effects in curing the bites of venomous beasts; <sup>a</sup> and by this name it is known and used at this day. But, notwithstanding this happy improvement by *Andromachus*, the original *Mithridatium* has all along been continued as well as this reformation of it, and is still prepared by our Apothecaries according to a receipt of *Damocrates* in Greek Iambics, which has been preserved by *Galen*.

Now whether *Mithridates* was or was not the author of this celebrated composition, it was manifestly founded in error, since it was chiefly intended as a counterpoison: for nothing can be more false than the notions which have generally prevailed about the force and number of Poisons, and consequently of Antidotes.

In the ruder ages of the world, before experience had furnished mankind with any considerable knowledge of nature, they seem to have been under perpetual alarms from an apprehension of poisons: They had probably seen the ill effect of some

<sup>a</sup> Galen L. I. de Antid. et de Theriac. ad Pison.

few substances on the human body; and, like people in the dark, immediately made their dangers more and greater than they were; hence came that great number of Antidotes, which we meet with in the writings of the old Physicians, whose chief use was against poisons.<sup>a</sup> What ignorance or an immoderate fondness for life had thus begun, was carried to a much greater height by that strong passion which the Vulgar have ever shewn for prodigies and miraculous stories. This was a sufficient warrant for Poets and other dealers in fiction to make a plentiful use of poisons upon all occasions; by which the original error has been much confirmed and improved. Not to mention any thing of the suspicions which have attended Mothers-in-law, immediate Successors and other persons interested in the deaths of such as were taken off with any unusual symptoms. Politicians seem likewise to have given authority to these groundless suppositions, by laying the the deaths of many, whom they dispatched, upon poisons which the parties themselves, as was given out, always carried about with them and had secretly taken; by this contrivance the matter was hushed up and all the odium of the murder avoided. The death of *Demosthenes* was, I think, of this sort; who was probably killed by some trusty Assassin that *Antipater's* party sent into

<sup>a</sup> Celsus L. 5. c. 23.

the temple to him, but it was too unpopular an action among the Athenians to be openly avowed. This, though not hitherto suspected that I know of, appears not unlikely from the variety of accounts about his poisoning himself, and because there was no poison then known that could effect it according to any of these accounts. The same perhaps may be said of *Hannibal* and of several others. By all these means the number and fame of reputed poisons has been perpetually increasing; and Antidotes have increased in proportion; for if a person did not dye who had taken an ineffectual poison, it was of course attributed to the virtue of some insignificant Antidote. After all these rumours of poisons and tragical relations of their effects in all histories, it is surprizing to find that the Antients knew of none except the *Cicuta*, *Aconitum*, and those of venomous beasts; <sup>a</sup> and knew of no antidote whatever to these poisons. The many intrigues mentioned in antient history to have been carried on by means of others and far more subtil ones, especially in the Persian court, will at once come into my learned Reader's mind in prejudice of my assertion. To obviate which I only desire him to consider that all the old Naturalists and Physicians, though some of them professedly treat of poisons, appear to have known no real ones but those abovementioned:

<sup>a</sup> Hoffman, *Syst. Med. Rat.* T. II. p. 183.



their catalogue is indeed much larger by having in it, Quicksilver, Orpiment, Bull's Blood, Diamonds with many other innocent things : And is it possible that Women and Eunuchs shut up in an eastern palace should have a greater insight into the powers of nature, than those Philosophers who spent their whole lives and travelled the known world over in quest of natural knowledge? Indeed the common stories have all the marks of forgery and falshood; in particular, it is pleasant to observe how these fantoms have fled before the approach of light and learning. The first account of subtil poisons that might be concealed under the stone of a seal or ring began in *Greece*; and *Theophrastus* mentions a sort of them that might be proportioned so as to exert their effects after any given time.<sup>a</sup> When this story could no longer maintain its ground in *Europe*, it took sanctuary in *Africa*, for in *A. Gellius's* time<sup>b</sup> such an one was reported to have been given there to *Regulus*, before they permitted his going to *Rome*, that, whatever happened, they might be sure of destroying him. From *Africa* it fled into *Asia* among the *Turks*, who, as *Matthiolus*<sup>c</sup> suspected, were in possession of these fatal secrets. It has been driven from the *Turks* into the remotest

<sup>a</sup> Hist. Plant. L. 9. c. 16.

<sup>b</sup> A. Gell. L. 6. c. 4.

<sup>c</sup> In Dioscor. p. 972.

East-Indies,<sup>d</sup> and upon our coming nearer these countries by an established commerce, this ignis fatuus retreated into the West-Indies, the first accounts<sup>e</sup> of which give us the old story with all the pretended airs of truth and novelty, as if it had not been long before exploded out of every other part of the World. I would not be understood to deny the possibility of poisoning by such very small quantities, by the vapors arising from perfumed gloves and letters, or that a poison may lye concealed in the blood for a considerable time before it exerts itself. It is plain that there are such things in nature, from the terrible effects of that very little liquor instilled by the bite of a viper; from the vapors of charcoal; and the poison of a mad-dog lurking, as some say, for twenty years: however the gout and leprosy and madness will certainly lye in the blood unactive for a whole generation. But I think I may venture to assert, there never was any thing yet discovered that we can apply with such effects. Now if this is a true account of the state of poisons among the Antients, what are we to think of their Antidotes? Would it not be as strange to make use of them, as of the charms and amulets which are delivered down to us as preservatives from

<sup>d</sup> Purchas, Pilgr. L. 10. c. 8.

<sup>e</sup> G. Piso Hist. Nat. Brasil. L. 3.

witchcraft, an evil eye, or the power of any malicious Demons ?

What has here been said may be objected to every single alexipharmac drug: but much more may be said against them when united together as in the *Mithridatium*; which has by many been called a piece of mere jumble and chance-work without any footsteps of order, proportion or design, without any regard to the known virtues of Simples or to any rules of artful composition. I forbear to mention the unreasonable number of ingredients, their contradictory effects even according to the Antients themselves, the inconsiderable portion of many of them in the quantity of a dose, with several other particulars of the same kind that have been so often objected to it. The most zealous patron that ever defended it will hardly assert that it's Inventor had such an insight into the powers of the *Materia medica*, as to see any reason a priori for the number and proportions that he has used: Experience alone can be called in to vouch for it's character, and no better voucher can be desired; but experience is clearly against it; this once all-powerful medicine that resisted every poison and malignant disease, that procured long life, quickness of senses, stability of health, that not only cured present but prevented future diseases, (all which and much

more is affirmed of the reformed Mithridate or *Theriaca* by *Galen*<sup>a</sup>) is at present scarce ever made use of for any of these purposes; but destitute of all it's celebrated virtues is forced to take refuge in that of a Diaphoretic, which is commonly the virtue of a medicine that has none. And there cannot surely be a stronger proof of any medicine's insignificancy, than it's losing ground so remarkably after a tryal of near two thousand years with a constant prepossession in it's favour. We have no particular accounts of any service that it ever did; but we are told that the constant use of it hurt that excellent Emperor *Antoninus* by throwing him into a lethargic disorder: <sup>b</sup> and it did *Mithridates* no good, supposing that he ever knew and used it; for his not being able to dispatch himself was probably less owing to the strength of his antidote than to the weakness of his poison. In particular it's antidote virtue is utterly lost; we know of many more poisons than the Antients, yet there is not one which the Mithridate will at all counteract any farther than plain Opium will do it: Whoever was to depend upon it would infallibly meet with the fate of that unfortunate Quack mentioned by *Wepfer*<sup>c</sup> who offered to sale a medicine made

<sup>a</sup> In Libb. citatis.                      <sup>b</sup> *ibid.*

<sup>c</sup> De *Cicuta Aquatica* p. 322.

upon the plan of the old Antidotes, that was to secure people from all poisons: he was rash enough to make the experiment upon himself by taking Arsenic, and soon died, notwithstanding his Antidote, in a miserable manner. But if we are forced to give up the original alexipharmac virtue, there is a strong presumption against it's being good for any thing else; for if medicines so elaborately contrived will not answer their first purpose, it is a great chance if they can be applied to any other for which they were not intended, without having great defects and superfluities in this new application.

But let us even suppose that undesigning chance did hit upon a mixture, for which experience has found out uses in as full a manner as the Antients ever pretended; yet what foundation will this be to us for expecting the like advantages? What if Fortune has for once out of a medley of inconsistent drugs produced an useful medicine, can we therefore hope that any other fortuitous concurrence of them will have the same effect? But this we must hope, if we have any confidence in what is at present called *Mithridatium* or *Theriaca*. For I believe that it has scarce ever continued the same for a hundred years together. *Celsus* is the first that describes this medicine, and in him it consists of thirty eight Simples. Before

*Nero's* time, five of these were struck out, and twenty others added. Soon after, *Andromachus* leaving out six and adding twenty-eight ingredients, increased the sum total to seventy-five. *Aëtius* in the V<sup>th</sup> Century and *Myrepsus* in the XII<sup>th</sup> give us very different descriptions of *Mithridatium*: and since that time it has been in a state of perpetual fluctuation; the alterations, that it has undergone by accident, being as great as those that have been designedly made in it. For of the Simples that antiently composed it, several are utterly unknown,<sup>a</sup> others only guessed at with great uncertainty, and some very erroneously, as might easily be shewn, and were so even in *Pliny's*<sup>b</sup> time. From the different substitutes for the unknown parts, and the various guesses at the uncertain parts, with the difficulty of getting many of the ingredients, being never used but in this composition, it happens that not only all the Moderns differ from the Antients, but almost all our shops differ from one another in their manner of preparing it. Many are the disputes, which have been occasioned among Physicians, about it's true drugs. There was one carried so high, about a hundred years ago, con-

<sup>a</sup> See Manard. Epist. Lib. 6. ep. 3, et Jo. Bapt. Theodos. Epist. 11.

<sup>b</sup> Nat. Hist. L. 29, c. 1.

cerning Balsam of Gilead, that at last the Disputants appealed to the Pope ; but the Pope, not chusing to assert his infallibility in matters of Physic, wisely referred the cause to *Petrus Castellus*, a learned Physician of *Rome*, who has published an account of this notable controversy. Now in cases where we can reason upon the effects of a medicine, many alterations may be made and yet the virtues continue the same ; but as here we must wholly depend upon experience, how can any one be sure that these alterations have not utterly spoiled it, since no one knows where it's virtues, lye ? and <sup>c</sup> *Galen* has told us that the badness of any one ingredient will often spoil the whole composition. Besides, which of all the antient descriptions are we to take ? for the several receipts <sup>d</sup> under the names of the elder and younger *Andromachus*, *Damocrates*, *Crito*, *Magnus*, *Xenocrates* and *Demetrius* all vary from one another. This objection will farther be strengthened by considering that even in *Galen's* time there were great faults in the copies that were handed about, <sup>a</sup> and if many new ones have not been since added, they must have had better fortune than any other kind of writing ;

<sup>c</sup> De Theriaca. ad Pison. c. 12. If it be *Galen's*.

<sup>d</sup> Galen in Libb. citat.

<sup>a</sup> Galen Lib. 1. de Antidot.

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but the first elements of criticism will teach us that they are of all the most corrupt, as they consist of arbitrary marks for quantities and unconnected names of Simples, where the context is of no service to direct the copyists: and that this has happened in fact to these medicines appears from the various readings belonging to their descriptions in *Celsus*, *Galen*, *Aëtius* and *Myrepsus*; and likewise from all these authors differing from one another in their directions how they are to be prepared.

If our objections stopped here, and these grand antidotes were only good for nothing; it would hardly be worth while to censure or take any notice of them: but we may justly fear that their use is attended with a good deal of danger. As many people busy themselves with the practice of Physic, who are unqualified to know what they are doing; it may be advisable, for the sake of such as fall into their hands, to discountenance a medicine, which, upon the tradition of its sovereign virtues, or as a sudorific, is often applied at random, and, by means of the Opium, does much mischief. But its use may be of ill consequence not only in the hands of the vulgar, but even of a skillful Physician; for Opium or any powerful drug, mixed up into an electuary with so many other things, is against all rules of pharmacy;



macy ; the prescriber lies too much at the mercy of the person who mixes the ingredients, whether what he gives for an ordinary dose shall not contain a dangerous or fatal quantity of opium : and indeed it is hardly to be expected, in such a multiplicity of ingredients, that the usual dose will contain a just proportion of all of them, and of course the Physician will be greatly in the dark, whenever he prescribes it. There are not wanting instances of such ill effects from the *Mithridatium* and *Theriaca*, as must have been owing to the patient's having more than his share of Opium. It is very probable that this was long ago experienced, which gave occasion to the commendations bestowed upon *Old Theriaca* ; for *Galen* tells us<sup>a</sup> that the use of keeping it for some time is to mitigate the strength of the Opium : ( which, however, keeping will not do to any purpose<sup>b</sup> ) another reason has been since found out, namely, that age resolves the several parts into one uniform mass : upon these two accounts the practice of preferring such as has been laid up till it is thirty or forty years old, prevails to this day.<sup>c</sup> This surely lies extremely open to censure ; for would it not have been better to have put less

<sup>a</sup> L. 1. de Antid.

<sup>b</sup> Edinb. Essays. Vol. 5. art. 12.

<sup>c</sup> Vid. Aq. Theriacal. Pharm. Lond.

Opium in it at first? Did it enter there, only that it might go out again? Besides, together with the strength of the Opium, the virtues of the Aromatics will exhale and leave the mass, if not quite spiritless and unactive, at least much altered from what it was at first.

Lastly, this *farrago* is very apt to ferment; which fermentation, while it lasts, is said to exalt<sup>d</sup> the power of the Opium to a degree of strength three or four times as great as it had before; and a common dose may by these means be so much stronger than was intended; which is a danger not commonly thought of nor easily avoided, and cannot be balanced by any real virtues belonging to these medicines.

Why then should we retain them any longer in our shops? Can we not do every thing, that they can reasonably pretend to, in a much artfuller, safer and more simple manner? I think that they are now chiefly given as Opiates and *Aromatics*; which intentions would surely be much better answered by mixing two or three of our many spices, in which we so far excell the Antients, with as much Opium added to every dose as was thought proper; without loading a sick man's stomach with so many other useless things, that must accompany them, when

<sup>d</sup> Juncker. Chem. Tab. 72.

given in the *Mithridatium* or *Theriaca*. I own it is hard to say, that these are their chief virtues, or what their chief virtues are; for there are as many friendly and hostile qualities blended together, as in that well-known case, where the Poët forbids us *incerta hæc ratione certa facere*.

I might now proceed to support my objections by authorities, which perhaps would be the properest method of attacking what is supported only by authority. For I must do that justice to Physicians as to own that there have not been wanting several in all ages who have born witness against this complicated error, and that it's triumph has been constantly attended with many just censures and reproaches. However I shall content myself with quoting only the opinion of *Pliny* who is almost as old as the *Theriaca*, and that of a Writer of our own times; since if what has been said is of any weight, it will make it an unnecessary task to collect all that has been disputed for and against it by the intervening Writers. The latter of these Authors <sup>a</sup> asserts that *Mithridatium* and such other medicines have done more mischief in

<sup>a</sup> Theriaca, Mithridatium, Philonium et alia confusa magis, quam composita remedia, plus sane damni, quam auxilii adferunt. Hinc ad justa Dei judicia referendum videtur, quod falsæ de his remediis traditiones universo fere terrarum orbi imposuerint. Junck. Med. Pract. 587.

the world than good : The former declaims with great vehemence against the injudiciousness, the ostentation and wantonness of this heap of Drugs.<sup>a</sup> Both of them seem, oddly enough, to agree in referring the invention of it to the just judgment of heaven ; as if the delusion was too strong and unaccountable to proceed from mere human artifice and contrivance. But notwithstanding what these and others have said against it, it still goes on to be prepared in the old manner, as near as may be, in all the great cities of Europe. It's power indeed and fame has of late been manifestly declining ; and we may hope that it's reign will not last much longer. Enough surely has been given to Antiquity : let not length of time, which has ever been the fatal enemy of falshood and imposture, be made in this instance to support and protect them. Perhaps the glory of it's first expulsion from a public Dispensatory was reserved to these times and

<sup>a</sup> Theriaca vocatur excogitata compositio luxuriæ ; fit ex rebus externis, cum tot remedia dederit Natura, quæ singula sufficerent. Mithridatium Antidotum ex rebus LIV componitur, interim nullo pondere æquali, et quarundam rerum sexagesima denarii unius imperata. Quo Deorum perfidiam istam [ al. per fidem ista ] monstrante ? Hominum enim subtilitas tanta esse non potuit. Ostentatio artis et portentosa scientiæ venditatio manifesta est. Plin. N. H. L. 29. c. 1.

to the English Nation; in which all parts of Philosophy have been so much assisted in asserting their freedom from antient fable and superstition; and whose College of Physicians, in particular, hath deservedly had the first reputation in their profession. Among the many eminent services, which the authority of this learned and judicious Body hath done to the practice of Physic, it might not be the least that it had driven out this medley of discordant Simples; which, perhaps, has no better title to the name of *Mithridates*, than as it so well resembles the numerous, undisciplined forces of a barbarous King, made up of a dissonant crowd collected from different countries, mighty in appearance, but in reality, an ineffective multitude, that only hinder one another.

THE END.

